

**UNITED STATES PATENT APPLICATION**

**INVENTION : HEMO-AIDE**

**INVENTOR : Clark, Robert**

**PAGE : 24**

**ABSTRACT**

An apparatus and method for modifying viruses and bacteria in a closed loop system that irradiates the fluid multiple times through the same channel. The apparatus consists of a cuvette, an irradiation station, two ultraviolet light sources, a peristaltic pump, and a bottle which are all systematically situated with respect to a housing and a cover. A plurality of power control switches controls the operation of the apparatus. This includes an on/off power switch, an on/off pump control, and ultraviolet light control switches. Timers are provided to regulate the time period the cuvette is exposed to the ultraviolet radiation within the irradiation station from the two ultraviolet light sources. The cover is also provided to enable the cuvette to be used and exposed to ultraviolet radiation within an enclosed environment.